

ABSTRACT

A collective substrate (1) is produced by firing a ceramic green sheet and forming through-holes (11) in the resulting substrate. The through-holes (11) each have an interior surface including taper surfaces (11b, 11c) which are tapered as having an opening size progressively decreasing from a main surface (21) and an external connection surface (22) toward a minimum size hole portion (11a). The taper surfaces (11b, 11c) respectively form obtuse angles θ_1 , θ_2 with the main surface (21) and the external connection surface (22). A semiconductor element mount (BL) includes an insulative member (2) cut out of the collective substrate (1). An imaging device (PE2) includes an imaging element (PE1) mounted in a region surrounded by a frame (4) which is bonded to the main surface (21) of the insulative member (2) and closed by a cover (FL). A light emitting diode component (LE2) includes a light emitting element (LE1) mounted on the main surface (21) of the insulative member (2) with the minimum size hole portion (11a) of the through-hole being filled with an electrically conductive material (33a), the light emitting element being sealed with a fluorescent material and/or a protective resin (FR). A light emitting diode (LE3) includes the light emitting diode component (LE2) mounted in a package (7).